



EXPRESS MAIL NO. EV335610941US

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Jiangchun Xu et al.  
Application No. : 09/780,669  
Filed : February 9, 2001  
For : COMPOSITIONS AND METHODS FOR THE THERAPY AND  
DIAGNOSIS OF PROSTATE CANCER

Examiner : Larry R. Helms, Ph.D.  
Art Unit : 1642  
Docket No. : 210121.427C24  
Date : December 22, 2004

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

FOURTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents:

In accordance with 37 CFR 1.56 and 1.97 through 1.98, applicants wish to make known to the U.S. Patent and Trademark Office the references set forth on the attached Form PTO-1449. Copies of cited U.S. patents and published patent applications are not required and accordingly have not been provided. Copies of all other cited references are enclosed. As to any reference cited, applicants do not admit that it is "prior art" under 35 U.S.C. §§ 102 or 103, and specifically reserve the right to traverse or antedate any such reference, as by a showing under 37 CFR 1.131 or other method. Although the aforesaid references are made known to the Patent and Trademark Office in compliance with applicants' duty to disclose all information they are aware of which is believed relevant to the examination of the above-identified application, applicants believe that their invention is patentable.

In the Office Action mailed June 22, 2004, the Examiner noted that the references cited on the IDSs sent February 9, 2001 and October 19, 2001 were not considered. While the

references were submitted to and/or cited by the Patent and Trademark Office in prior applications, the Examiner indicated that the documents were not available. Accordingly, all references not considered are listed on pages 3-8 of attached Forms PTO-1449 (Fourth Supplemental Information Disclosure Statement), and a copy of each reference is submitted herewith. Additionally, Applicants disclose and would like to have officially considered the references listed on pages 1-2 of the attached forms PTO-1449 (copies enclosed).

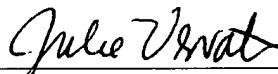
It is further noted that references CB and CE, on the enclosed Forms PTO-1449, are written in German. Accordingly, the Examiners attention is respectfully directed to references EL and FG respectively which provide English language abstracts regarding the nature of the original German documents.

Lastly, it is noted that reference CJ is written in Japanese. Accordingly, the Examiners attention is respectfully directed to reference AC, which is an English language equivalent of the original Japanese document.

Please acknowledge receipt of this Fourth Supplemental Information Disclosure Statement and kindly make the cited references of record in the above-identified application.

A fee of \$180 is submitted in accordance with 37 CFR 1.97(c). The Director is authorized to charge any other fees which may be required, or credit any overpayment to Deposit Account No. 19-1090.

Respectfully submitted,  
Seed Intellectual Property Law Group PLLC

 No. 50,461  
for Jeffrey Hundley, Ph.D., Patent Agent  
Registration No. 42,676

JEH:ljt

Enclosures:

Forms PTO-1449 (8 Sheets)  
Cited References (90)

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FORM PTO/1449  
(REV. 7-80)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.

APPLICATION NO.

210121.427C24

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GROUP ART UNIT

1642

FOURTH SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENT

(See several sheets if necessary)

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	AC	EP 679716 A1	11/02/95	EPO		
	AD	WO 99/06550	02/11/99	WIPO		
	AE	WO 00/23111	04/27/00	WIPO		
	AF	WO 00/55320	09/21/00	WIPO		
	AG	WO 01/07611	02/01/01	WIPO		
	AH	WO 01/19988	03/22/01	WIPO		

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AI	GenBank Database, Accession No. AAC17119, April 28, 2000. Available at <a href="http://www.ncbi.nlm.nih.gov">http://www.ncbi.nlm.nih.gov</a> .
	AJ	GenBank Database, Accession No. AAF08364, November 16, 1999. Available at <a href="http://www.ncbi.nlm.nih.gov">http://www.ncbi.nlm.nih.gov</a> .
	AK	GenBank Database, Accession No. AAH07290, June 29, 2004. Available at <a href="http://www.ncbi.nlm.nih.gov">http://www.ncbi.nlm.nih.gov</a> .
	AL	GenBank Database, Accession No. AF065388, April 28, 2000. Available at <a href="http://www.ncbi.nlm.nih.gov/">http://www.ncbi.nlm.nih.gov/</a> .
	AM	GenBank Database, Accession No. AF133425, November 16, 1999. Available at <a href="http://www.ncbi.nlm.nih.gov">http://www.ncbi.nlm.nih.gov</a> .
	AN	GenBank Database, Accession No. BC000695, December 14, 2004. Available at <a href="http://www.ncbi.nlm.nih.gov">http://www.ncbi.nlm.nih.gov</a> .

EXAMINER

DATE CONSIDERED

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

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BA						

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
				YES	NO
BB					

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

BC	GenBank Database, Accession No. BC007290, June 29, 2004. Available at <a href="http://www.ncbi.nlm.nih.gov">http://www.ncbi.nlm.nih.gov</a> .
BD	GenBank Database, Accession No. NM_005727, October 27, 2004. Available at <a href="http://www.ncbi.nlm.nih.gov">http://www.ncbi.nlm.nih.gov</a> .
BE	GenBank Database, Accession No. NP_005718, October 27, 2004. Available at <a href="http://www.ncbi.nlm.nih.gov">http://www.ncbi.nlm.nih.gov</a> .
BF	GenBank Database, Accession No. XM_001603, July 16, 2001. Available at <a href="http://www.ncbi.nlm.nih.gov/">http://www.ncbi.nlm.nih.gov/</a> .
BG	GenBank Database, Accession No. XP_001603, July 16, 2001. Available at <a href="http://www.ncbi.nlm.nih.gov">http://www.ncbi.nlm.nih.gov</a> .
BH	Geneseq Database (Thomson Derwent), Accession No. AAC99098, March 9, 2001.
BI	Geneseq Database (Thomson Derwent), Accession No. AAX40584, June 18, 1999.
BJ	Geneseq Database (Thomson Derwent), Accession No. AAX40605, June 18, 1999.
BK	Geneseq Database (Thomson Derwent), Accession No. AAY11862, June 18, 1999.
BL	Geneseq Database (Thomson Derwent), Accession No. AAY11883, June 18, 1999.
BM	
BN	

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FORM PTO-1449

(REV. 7-80)

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	CA	5,786,148	07/28/98	Bandman et al.	435	6	

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	CB	DE 19649207	11/27/96	Germany		X
	CC	EP 317 141 A2	05/24/89	EPO		
	CD	EP 652 014 A1	05/10/95	EPO		
	CE	EP 936 270 A2	08/18/99	EPO		X
	CF	WO 93/14755	08/05/93	WIPO		
	CG	WO 93/25224	12/23/93	WIPO		
	CH	WO 94/09820	05/11/94	WIPO		
	CI	WO 95/04548	02/16/95	WIPO		
	CJ	WO 95/14772	06/01/95	WIPO (Cover page with English abstract only)		X
	CK	WO 95/30758	11/16/95	WIPO		
	CL	WO 96/21671	07/18/96	WIPO		

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	CM	Ahn and Kunkel, "The structural and functional diversity of dystrophin," <i>Nature Genetics</i> 3: 283-291, April 1993.
	CN	Alexeyev et al., "Improved antibiotic-resistance gene cassettes and omega elements for <i>Escherichia coli</i> vector construction and in vitro deletion/insertion mutagenesis," <i>Gene</i> 160:63-67, 1995.
	CO	Berthon et al., "Predisposing gene for early-onset prostate cancer, localized on chromosome 1q42.2-43," <i>Am. J. Hum. Genet.</i> 62(6):1416-1424, June 1998.
	CP	Blok et al., "Isolation of cDNA that are differentially expressed between androgen-dependent and androgen-independent prostate carcinoma cells using differential display PCR," <i>The Prostate</i> 26:213-224, 1995.
	CQ	Busselmakers et al., Genbank Accession No. AF103907, August 14, 2000.

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**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	DB	WO 97/33909	09/18/97	WIPO		
	DC	WO 98/12302	03/26/98	WIPO		
	DD	WO 98/17687	04/30/98	WIPO		
	DE	WO 98/20117	05/14/98	WIPO		
	DF	WO 98/31799	07/23/98	WIPO		
	DG	WO 98/37093	08/27/98	WIPO		
	DH	WO 98/37418	08/27/98	WIPO		
	DI	WO 98/38310	09/03/98	WIPO		
	DJ	WO 98/39446	09/11/98	WIPO		
	DK	WO 98/45435	10/15/98	WIPO		

**OTHER ART** (Including Author, Title, Date, Pertinent Pages, Etc.)

DL	Busselmakers et al., Genbank Accession No. AF103908, August 14, 2000.
DM	Cawthon et al., "cDNA sequence and genomic structure of EVI2B, a gene lying within an intron of the neurofibromatosis type 1 gene," <i>Genomics</i> 9:446-460, 1991.
DN	Chu et al., "CpG oligodeoxynucleotides act as adjuvants that switch on T helper 1 (Th1) immunity," <i>J. Exp. Med.</i> 186(10): 1623-1631, November 17, 1997.
DO	Coleman et al., <i>Fundamental Immunology</i> , Wm. C. Brown Publishers, Dubuque, Iowa, 1989, pp. 465-466.
DP	Database EMBL Accession No. AA453562, June 5, 1997, Hillier et al., "Homo sapiens cDNA clone 788180."

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EA						

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	EB	WO 98/50567	11/12/98	WIPO		
	EC	WO 99/06548	02/11/99	WIPO		
	ED	WO 99/06552	02/11/99	WIPO		
	EE	WO 99/25825	05/27/99	WIPO		
	EF	WO 99/31236	06/24/99	WIPO		
	EG	WO 00/04149	01/27/00	WIPO		
	EH	WO 01/25272	04/12/01	WIPO		
	EI	WO 01/34802	05/17/01	WIPO		

**OTHER ART** (Including Author, Title, Date, Pertinent Pages, Etc.)

EJ	Derwent Geneseq Database, Accession No. AAV58522, December 8, 1998.
EK	Derwent Geneseq Database, Accession No. AAV61287, January 6, 1999.
EL	Duerst and Nees, "Nucleic acid characteristic of late or early passage cells immortalized by papilloma virus-and related polypeptide(s) and antibodies, used for diagnosis and treatment of cervical cancer and assessing potential for progression of cervical lesions," Derwent World Patent Index, Accession No. 1998-121623, 1998. See also German Patent DE 19649207 C1.
EM	El-Shirbiny, "Prostatic Specific Antigen," <i>Advances In Clinical Chemistry</i> 31:99-133, 1994.
EN	Ezzell, C., "Cancer vaccines: an idea whose time has come?" <i>The Journal of NIH Research</i> 7:46-49, January 1995.
EO	Hara et al., "Characterization of cell phenotype by a novel cDNA library subtraction system: expression of CD8 $\alpha$ in a mast cell-derived interleukin-4-dependent cell line," <i>Blood</i> 84(1):189-199, July 1, 1994.

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FA						

**FOREIGN PATENT DOCUMENTS**

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				YES	NO
FB					

**OTHER ART** (Including Author, Title, Date, Pertinent Pages, Etc.)

FC	Harris et al., "Polycystic Kidney Disease 1: identification and analysis of the primary defect," <i>J. Am. Soc. of Nephrol.</i> 6:1125-1133, 1995.
FD	Hillier et al., Genbank Accession No. AA100799, December 23, 1997.
FE	Hillier et al., Genbank Accession No. R20590, April 18, 1995.
FF	Hudson, T., Genbank Accession No. G22461, May 31, 1996.
FG	Kroeger, B. "New serine protease form human prostate, useful for identifying specific inhibitors, antibodies and probes," Derwent World Patent Index, Accession No. 99-432218, 1999. See also European Patent EP 936 270 A2.
FH	Lalvani et al., "Rapid effector function in CD8 <sup>+</sup> memory cells," <i>J. Exp. Med.</i> 186(6):859-865, September 15, 1997.
FI	National Cancer Institute, Cancer Genome Anatomy Project (NCI-CGAP), Genbank Accession No. AA551449, September 5, 1997.
FJ	National Cancer Institute, Cancer Genome Anatomy Project (NCI-CGAP), Genbank Accession No. AA551759, August 11, 1997.
FK	National Cancer Institute, Cancer Genome Anatomy Project (NCI-CGAP), Genbank Accession No. AA631143, October 31, 1997.
FL	National Cancer Institute, Cancer Genome Anatomy Project (NCI-CGAP), Genbank Accession No. AA653016, November 25, 1997.

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GA						

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
				YES	NO
GB					

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

GC	Nelson et al., Genbank Accession No. NP_004908, October 27, 2004.
GD	Robson et al., "Identification of prostatic adrogen regulated genes using the differential display technique," <i>Proceeding of the American Association for Cancer Research Meeting 86, 36: p.266, Abstract No. 1589, 1995.</i>
GE	Schena et al., "Parallel human genome analysis: Microarray-based expression monitoring of 1000 genes," <i>Proc. Natl. Acad. Sci. USA 93(19):10614-10619, October, 1996.</i>
GF	Sherman et al., "Selecting T cell receptors with high affinity for self-MHC by decreasing the contribution of CD8," <i>Science 258(5083):815-818, October 30, 1992.</i>
GG	Short et al., "λ ZAP: a bacteriophage λ expression vector with <i>in vivo</i> excision properties," <i>Nucleic Acids Research 16(15):7583-7600, 1988.</i>
GH	Sjögren, H., "Therapeutic Immunization Against Cancer Antigens Using Genetically Engineered Cells," <i>Immunotechnology 3: 161-172, 1997.</i>
GI	Smith et al., "Major susceptibility locus for prostate cancer on chromosome 1 suggested by a genome-wide search," <i>Science 274(5291): 1371-1374, November 22, 1996.</i>
GJ	Theobald, et al., "Targeting p53 as a general tumor antigen," <i>Proc. Natl. Sci. USA 92(25):11993-11997, December 5, 1995.</i>
GK	Tsai et al., "In vitro immunization and expansion of antigen-specific cytotoxic T lymphocytes for adoptive immunotherapy using peptide-pulsed dendritic cells," <i>Critical Reviews in Immunology 18:65-75, 1998.</i>
GL	Tusnady and Simon, "Principles governing amino acid compositions of integral membrane proteins: application to topology prediction," <i>J. Mol. Biol. 283(2):489-506, October 23, 1998.</i>

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FORM PTO-449  
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HA						

**FOREIGN PATENT DOCUMENTS**

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				YES	NO
HB					

**OTHER ART** (Including Author, Title, Date, Pertinent Pages, Etc.)

HC	Vasmatzis et al., "Discovery of three genes specifically expressed in human prostate by expressed sequence tag database analysis," <i>Proc. Natl. Acad. Sci. USA</i> 95(1):300-304, January 6, 1998.
HD	Yee et al., "Isolation of tyrosinase-specific CD8 <sup>+</sup> and CD4 <sup>+</sup> T cell clones from the peripheral blood of melanoma patients following in vitro stimulation with recombinant vaccinia virus," <i>The Journal of Immunology</i> 157(9):4079-4086, November 1, 1996.
HE	Zitvogel et al., "Eradication of Established Murine Tumors Using a Novel Cell-Free Vaccine: Dendritic Cell-Derived Exosomes," <i>Nature Medicine</i> 4(5): 594-600, May, 1998.
HF	
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HH	
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